

Arash Boochani

List of Publications by Year in descending order

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80
papers

1,349
citations

394421

19
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361022

35
g-index

80
all docs

80
docs citations

80
times ranked

1271
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Electronic and optical properties of 2D graphene-like compounds titanium carbides and nitrides: DFT calculations. Solid State Communications, 2014, 195, 61-69. | 1.9 | 177 |
| 2 | Electronic and optical properties of 2D graphene-like ZnS: DFT calculations. Applied Surface Science, 2016, 369, 76-81. | 6.1 | 103 |
| 3 | Electronic, optical and elastic properties of cubic perovskite CsPbI ₃ : Using first principles study. Optik, 2016, 127, 11433-11443. | 2.9 | 96 |
| 4 | Novel Graphene-like Co ₂ VAI (111): Case Study on Magneto-electronic and Optical Properties by First-Principles Calculations. Journal of Physical Chemistry C, 2017, 121, 3978-3986. | 3.1 | 67 |
| 5 | Topographic Characterization of Cu-Ni NPs @ a-C:H Films by AFM and Multifractal Analysis. Journal of Physical Chemistry B, 2015, 119, 5662-5670. | 2.6 | 61 |
| 6 | A scheme for secure quantum communication network with authentication using GHZ-like states and cluster states controlled teleportation. Quantum Information Processing, 2015, 14, 4279-4295. | 2.2 | 61 |
| 7 | Microstructure and micromorphology of ZnO thin films: Case study on Al doping and annealing effects. Superlattices and Microstructures, 2016, 93, 109-121. | 3.1 | 58 |
| 8 | The electronic and optical properties of MgO mono-layer: Based on GGA-mBJ. Results in Physics, 2019, 12, 2038-2043. | 4.1 | 51 |
| 9 | Electronic and optical properties of cubic SrHfO ₃ at different pressures: A first principles study. Materials Chemistry and Physics, 2017, 186, 620-626. | 4.0 | 43 |
| 10 | Calculation of Half-Metal, Debye and Curie Temperatures of Co ₂ VAI Compound: First Principles Study*. Communications in Theoretical Physics, 2015, 63, 641-647. | 2.5 | 42 |
| 11 | Ab-initio study of mechanical, half-metallic and optical properties of Mn ₂ ZrX (X = Ge, Si) compounds. Results in Physics, 2017, 7, 3522-3529. | 4.1 | 42 |
| 12 | Topological nature in cubic phase of perovskite CsPbI ₃ : By DFT. Solid State Communications, 2017, 259, 10-15. | 1.9 | 38 |
| 13 | Ti ₂ VGe Heuslerene: theoretical prediction of a novel 2D material. Journal of Materials Chemistry C, 2019, 7, 13559-13572. | 5.5 | 36 |
| 14 | Characterization of microroughness parameters in Cu-C nanocomposite prepared by co-deposition of RF-sputtering and RF-PECVD. EPJ Applied Physics, 2013, 64, 11301. | 0.7 | 32 |
| 15 | Ab initio study of electronic, magnetic, elastic and optical properties of full Heusler Co ₂ MnSb. Indian Journal of Physics, 2016, 90, 909-916. | 1.8 | 31 |
| 16 | Preparation and magnetoresistance behavior of nickel nanoparticles embedded in hydrogenated carbon film. Journal of Materials Science: Materials in Electronics, 2015, 26, 6814-6818. | 2.2 | 30 |
| 17 | First-principles study of optical properties of InN nanosheet. International Journal of Modern Physics B, 2016, 30, 1650117. | 2.0 | 29 |
| 18 | Mechanical stability and thermoelectric properties of the PdZrTiAl quaternary Heusler: A DFT study. Solid State Communications, 2020, 308, 113838. | 1.9 | 29 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Microstructure and optical properties of cobalt-carbon nanocomposites prepared by RF-sputtering. Journal of Materials Science: Materials in Electronics, 2015, 26, 5964-5969. | 2.2 | 27 |
| 20 | The effects of deposition time on surface morphology, structural, electrical and optical properties of sputtered Ag-Cu thin films. European Physical Journal Plus, 2016, 131, 1. | 2.6 | 22 |
| 21 | Electronic and optical properties of V doped AlN nanosheet: DFT calculations. Chinese Journal of Physics, 2018, 56, 2698-2709. | 3.9 | 22 |
| 22 | Synthesis of multiwalled carbon nanotubes on Cu-Fe nano-catalyst substrate. Results in Physics, 2017, 7, 3640-3644. | 4.1 | 19 |
| 23 | Thermodynamic phase diagram and thermoelectric properties of LiMgZ (Z=P, As, Bi): ab initio method study. Philosophical Magazine, 2021, 101, 369-386. | 1.6 | 17 |
| 24 | The Vanadium Effect on Electronic and Optical Response of MoS ₂ Graphene-Like: Using DFT. Silicon, 2018, 10, 2855-2863. | 3.3 | 13 |
| 25 | Elastic and optical properties of zinc-blende CrSb and its effective mass. Rare Metals, 2014, 33, 615-621. | 7.1 | 12 |
| 26 | Thermal stability of amorphous tungsten/tungsten nitride synthesis using HFCVD as a diffusion barrier for copper. Applied Physics A: Materials Science and Processing, 2016, 122, 1. | 2.3 | 11 |
| 27 | Half-metallic, magneto-optic, and thermoelectric properties of CoRuVZ (Z=Al, Ga). Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 414, 127622. | 2.1 | 11 |
| 28 | Thermodynamic phase diagram and electronic properties of Co ₂ VAl film: A first-principles study. International Journal of Modern Physics B, 2014, 28, 1450145. | 2.0 | 9 |
| 29 | Introduction of a carbon paste electrode based on nickel carbide for investigation of interaction between warfarin and vitamin K1. Journal of Pharmaceutical and Biomedical Analysis, 2017, 139, 156-164. | 2.8 | 9 |
| 30 | Electronic, optical, magneto-optical, and thermoelectric properties of the SrS graphene-like under Cr impurity. Chemical Physics, 2021, 551, 111355. | 1.9 | 9 |
| 31 | DFT study of elastic, half-metallic and optical properties of Co ₂ V(Al, Ge, Ga and Si) compounds. International Journal of Modern Physics B, 2017, 31, 1750109. | 2.0 | 8 |
| 32 | Half-Metallic, Thermoelectric, Optical, and Thermodynamic Phase Stability of RbBaB(001) Film: A DFT Study. International Journal of Thermophysics, 2019, 40, 1. | 2.1 | 8 |
| 33 | Thermoelectric and optical properties of the SrS graphene by DFT. Philosophical Magazine, 2020, 100, 3108-3124. | 1.6 | 8 |
| 34 | Hydrogen effect on half-metallic and thermoelectric properties of CoRhMnSi [001] film. International Journal of Energy Research, 2021, 45, 13055-13070. | 4.5 | 8 |
| 35 | GdPtBi Heuslerene: mechanical stability, half-metallic, magneto-optic, and thermoelectric properties by DFT. Philosophical Magazine, 2022, 102, 887-901. | 1.6 | 8 |
| 36 | The Vanadium effect on the electronic and optical properties of Ti ₃ C ₂ graphene like: Based DFT. Results in Physics, 2018, 8, 1209-1215. | 4.1 | 7 |

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|----|---|-----|-----------|
| 37 | Influence of deposition time on the optical and morphological properties of silver-copper thin films: experimental and statistical studies. <i>Optical and Quantum Electronics</i> , 2021, 53, 1. | 3.3 | 7 |
| 38 | Multiscale Surface Microtexture Analysis of CuNPs@a-C:H Thin Films. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 22520-22532. | 3.7 | 7 |
| 39 | Thermodynamic Stability, Half-Metallic and Optical Properties of Sc ₂ CoSi [001] Film: a DFT Study. <i>Communications in Theoretical Physics</i> , 2019, 71, 455. | 2.5 | 6 |
| 40 | Effects of hydrogen and nitrogen impurities on electronic, structural and optical properties of 2D ZnS graphene based. <i>Journal of Materials Science</i> , 2017, 52, 10393-10405. | 3.7 | 5 |
| 41 | Structural, Electronic and Optical Properties of InAs Phases: By GGA-PBG and GGA-EV Approximations. <i>Journal of Chemical Research</i> , 2017, 41, 172-182. | 1.3 | 4 |
| 42 | Electronic structure and magnetic properties of the CoFeMnZ (Z=As and Si) Heuslers by XAS, XMCD and MOKE: A DFT study. <i>Materials Today Communications</i> , 2021, 26, 101773. | 1.9 | 4 |
| 43 | Electronic and optical properties of Fe doped GaN graphene based: Using DFT. <i>Computational Condensed Matter</i> , 2021, 28, e00569. | 2.1 | 4 |
| 44 | Huge Figure of Merit, Half-Metallic, and Optical Properties in n-Type CoVSb Heuslerene. <i>International Journal of Thermophysics</i> , 2022, 43, 1. | 2.1 | 4 |
| 45 | Ab initio study of optical and vibrational properties of Ni ₃ C. <i>International Journal of Modern Physics B</i> , 2017, 31, 1750003. | 2.0 | 3 |
| 46 | Effect of Si and Ge Surface Doping on the Be ₂ C Monolayer: Case Study on Electrical and Optical Properties. <i>Silicon</i> , 2018, 10, 1893-1902. | 3.3 | 3 |
| 47 | Electronic and optical properties of graphene-like InAs: An ab initio study. <i>European Physical Journal Plus</i> , 2018, 133, 1. | 2.6 | 3 |
| 48 | Prevailing Cu-C Nanocomposite over Cu NPs for CNTs Growth: A Catalyst Study on Silicon Substrate. <i>Silicon</i> , 2018, 10, 907-912. | 3.3 | 3 |
| 49 | Thermodynamic phase diagram, magneto-optic and thermoelectric properties of the Al _{1-x} N _x (X = Co, Fe) thin films. <i>Journal of Applied Physics</i> , 2016, 119, 105101. | 1.6 | 3 |
| 50 | Thermodynamic Phase Diagram, Half-Metallic and Optical Properties of the Zr ₂ TiSi [111] Films Based on DFT. <i>Silicon</i> , 2020, 12, 2165-2178. | 3.3 | 3 |
| 51 | Optical, half-metallic and thermoelectric properties of the Co ₂ TaAl [001] film. <i>Indian Journal of Physics</i> , 2021, 95, 1709-1721. | 1.8 | 3 |
| 52 | STUDY OF ELECTRICAL AND OPTICAL PROPERTIES OF Cu-ASSISTED AMORPHOUS CARBON THIN FILMS DEPOSITION BY DC MAGNETRON SPUTTERING. <i>Modern Physics Letters B</i> , 2013, 27, 1350174. | 1.9 | 2 |
| 53 | Electronic and optical properties of GaN under pressure: DFT calculations. <i>International Journal of Modern Physics B</i> , 2017, 31, 1750261. | 2.0 | 2 |
| 54 | Vanadium impurity effects on optical properties of Ti ₃ N ₂ mono-layer: An ab-initio study. <i>Results in Physics</i> , 2018, 9, 270-274. | 4.1 | 2 |

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|----|--|-----|-----------|
| 55 | Thermodynamic stability, half-metallic and optical nature of graphene-like Mn ₂ ZrZ (Z = Ge, Si): Ab initio study. International Journal of Modern Physics B, 2018, 32, 1850324. | 2.0 | 2 |
| 56 | Characterization of halide perovskite/titania interfaces as a function of the interlayer composition: A theoretical study. Journal of Physics and Chemistry of Solids, 2020, 138, 109243. | 4.0 | 2 |
| 57 | Electronic, optical and thermoelectric properties of the WS ₂ /GaN interfaces: a DFT study. International Nano Letters, 2020, 10, 249-261. | 5.0 | 2 |
| 58 | Optical and electronic properties of zigzag boron nitride nanotube (6,0): DFT study. International Nano Letters, 2020, 10, 293-301. | 5.0 | 2 |
| 59 | Thermoelectric and half-metallic behavior of the Co ₂ TaAl: a DFT study. International Nano Letters, 2020, 10, 81-88. | 5.0 | 2 |
| 60 | Investigation of the stability, electronic structure, and magnetic properties of Sc ₂ VZ (Z = Ge, Si) Heusler alloys: First-principles calculations. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 267, 115096. | 3.5 | 2 |
| 61 | The effect of Fe impurity on electronic and optical properties of graphene-like InAs: a DFT-based study. Indian Journal of Physics, 2022, 96, 1705-1714. | 1.8 | 2 |
| 62 | Mechanical stability, half-metallic, and thermoelectric properties of LuCoTiSi, LuCoTiGe and LuCoTiSn: a DFT study. Indian Journal of Physics, 0, , 1. | 1.8 | 2 |
| 63 | Mechanical and thermodynamic stabilities, half-metallic and thermoelectric comparison between CoFeMnZ (Z = Si, Ge) Heuslers by DFT. Applied Physics A: Materials Science and Processing, 2021, 127, 1.2-3 | 2.3 | 2 |
| 64 | The band offset barrier and optical properties calculation of Co ₂ VGa/GaAs(001) interfaces: A DFT study. International Journal of Modern Physics B, 2018, 32, 1750270. | 2.0 | 1 |
| 65 | Structural, Half-Metallic, Optical, and Thermoelectric Study on the Zr ₂ TiX (X = Al, Ga, Ge, Si) Heuslers: by DFT. Silicon, 2019, 11, 501-511. | 3.3 | 1 |
| 66 | The Cr impurity effect on the optical properties of the Ti ₂ N graphene-like materials: a DFT study. International Nano Letters, 2019, 9, 289-298. | 5.0 | 1 |
| 67 | The MN effect on Electronic, optical and thermoelectric properties of Ti ₂ N graphene: by DFT. Chinese Journal of Physics, 2019, 57, 240-249. | 3.9 | 1 |
| 68 | Vanadium effect on the electronic and thermoelectric properties of ScPtBi compound. International Nano Letters, 2020, 10, 225-234. | 5.0 | 1 |
| 69 | Thermodynamic, mechanical stabilities and thermoelectric behavior of the XVSi (X = Co, Rh) half-Heuslers. Indian Journal of Physics, 2022, 96, 1045-1057. | 1.8 | 1 |
| 70 | Interfacial Rashba band splitting in the organohalide lead perovskites: an ab-initio study. Semiconductor Science and Technology, 2021, 36, 075010. | 2.0 | 1 |
| 71 | Surface micromorphology analysis of Cu/Ni nanocomposite thin films by power spectra density and fractal geometry. Materials Science-Poland, 2020, 38, 328-333. | 1.0 | 1 |
| 72 | Electronic, optical and thermoelectric properties of MoS ₂ -GaN interface. International Journal of Modern Physics B, 2022, 36, . | 2.0 | 1 |

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|----|---|-----|-----------|
| 73 | Carbon nanotubes growth on sub-surface catalyst layer of Cu-Ni nanoparticles thin film. Protection of Metals and Physical Chemistry of Surfaces, 2016, 52, 1043-1045. | 1.1 | 0 |
| 74 | Study of Pressure Effects on the Elastic Stability and Optical Treatment of Co ₂ VAl using GGA+U. Silicon, 2017, 9, 431-437. | 3.3 | 0 |
| 75 | Elastic stability and optical property under pressure of TiN phases: by first principles study. Indian Journal of Physics, 2017, 91, 1319-1330. | 1.8 | 0 |
| 76 | Electronic and optical properties of AlN under pressure: DFT calculations. International Journal of Modern Physics B, 2017, 31, 1650255. | 2.0 | 0 |
| 77 | Nickel Nanoparticle Catalyzed Growth of Multiwall CNTs on Copper thin Films Substrate. Protection of Metals and Physical Chemistry of Surfaces, 2019, 55, 677-681. | 1.1 | 0 |
| 78 | The band offset, Half-metallic and optical behavior in the CrSb/KCl [0001] interface: By DFT calculation. Chemical Physics Letters, 2019, 714, 53-60. | 2.6 | 0 |
| 79 | Electronic, optical and thermoelectric properties of BN-Be(8,0) nanotube: DFT study. Solid State Communications, 2022, , 114822. | 1.9 | 0 |
| 80 | Evaluation of electronic and optical behavior of the interface of Co ₂ FeAl/AlN heusler alloy. Materials Research Express, 2022, 9, 065004. | 1.6 | 0 |